

**South Dakota Science and Technology Authority Board of Directors**  
**Meeting Minutes**  
**Thursday, March 20, 2014**  
**Lead, South Dakota**

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 10:01 AM Mountain Time (MT) on Thursday, March 20, 2014 in the 2<sup>nd</sup> Floor Vault Conference Room at the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, South Dakota. A listening post was also established at the South Dakota Department of Tourism and State Development, 711 East Wells Avenue, Pierre, South Dakota.

**MEMBERS OF THE BOARD IN ATTENDANCE IN PERSON**

Ms. Pat Lebrun  
Mr. Ron Wheeler

**MEMBERS OF THE BOARD IN ATTENDANCE VIA TELEPHONE**

Dr. Ani Aprahamian  
Mr. Thomas Adam  
Mr. Paul Christen  
Mr. Dana Dykhouse

**MEMBERS OF THE BOARD ABSENT**

Chairman Casey Peterson

**SDSTA STAFF**

Ms. Michelle Andresen, Administrative Assistant  
Mr. Tim Engel, Legal Counsel  
Ms. Nancy Geary, Chief Financial Officer  
Mr. Mike Headley, Executive Director  
Ms. Sharon Hemmingson, Business Services and Contracts Manager  
Ms. Mandy Knight, User Support Office Manager  
Mr. Daryl (KC) Russell, Cultural Diversity Coordinator  
Ms. Constance Walter, Communications Director  
Mr. Joshua Willhite, Engineering Director

**MEDIA REPRESENTATIVES PRESENT DURING ALL OR PART OF THE MEETING**

Mr. Bob Mercer, South Dakota Newspaper Reporter  
Mr. Adam Hurlburt, Black Hills Pioneer

**ALSO PRESENT DURING ALL OR PART OF THE MEETING**

Mr. Mike Albertson, Albertson Engineering  
Ms. Melissa Johnson, Lead Chamber of Commerce  
Dr. Kevin Lesko, Sanford Underground Research Facility Operations Head (by telephone)  
Dr. Peggy Norris, Education and Outreach (E&O) Deputy Director (BHSU)  
Ms. Denise Parker, City of Lead Deputy Mayor  
Ms. Dusty Pinske, First Interstate Bank  
Dr. Ben Sayler, E&O Director (BHSU)  
Dr. Kay Schallenkamp, BHSU President  
Mr. Jared Schippers, Albertson Engineering  
Ms. Julie Stone, Lead Chamber of Commerce  
Mr. Tony Venhuizen, SD Office of the Governor (by telephone)  
Mr. Patrick Weber, SD Office of the Governor (by telephone)

## **ITEM 1. – CALL TO ORDER**

In the absence of Chairman Peterson, SDSTA Board of Director Vice-Chair Mr. Ron Wheeler called the meeting to order at 10:01 AM (MT). Roll call was held. All members were present in person or by telephone except Chairman Peterson. Mr. Tom Adam and Dr. Ani Aprahamian joined the meeting by telephone at 10:04 AM and 12:38 PM, respectively. Mr. Wheeler asked audience members to stand and introduce themselves.

## **ITEM 2. – APPROVE AGENDA**

Mr. Wheeler requested a motion to move Item 14 to follow Item 6 and approve the agenda as modified.

*Motion by Mr. Christen and second by Mr. Dykhouse to approve the agenda as modified. By roll call vote, the motion passed unanimously.*

## **ITEM 3. – APPROVE MINUTES**

Mr. Wheeler asked if there were any questions and requested a motion to approve the minutes of the December 12, 2013, meeting.

*Motion by Mr. Adam and second by Mr. Dykhouse to approve the Minutes of the December 12, 2013 meeting as presented. By roll call vote, the motion passed unanimously.*

## **ITEM 4. – AUDIT COMMITTEE REPORT**

Ms. Lebrun advised the board that the audit closeout report is a great representation of the audit review. She said the report was unqualified and no items needed to be addressed. The audit went smoothly and everything was exactly as it should be. She thanked SDSTA Chief Financial Officer Ms. Nancy Geary and SD Legislative Auditor Mr. Al Schaefer for the professional and efficient job of accomplishing the audit report. Ms. Lebrun asked the Board to approve the report at the June meeting.

In regard to selecting new Audit Committee members, Mr. Wheeler said that Chairman Peterson had asked Mr. Christen to join the committee to replace Mr. Dykhouse in July 2014. Ms. Lebrun will continue to Chair the Audit Committee.

## **ITEM 5. – FINANCIAL REPORT**

Ms. Geary began her report by stating that the SDSTA was slightly over budget due to the purchase of two heaters and necessary repairs to the Yates Hoist motor. Mr. Wheeler asked if the budget is expected to be on track for the remainder of the year, and Ms. Geary replied yes. SDSTA Executive Director Mr. Mike Headley reiterated that repairs to the Yates Hoist motor were necessary and the spare parts, which had to be rebuilt, were a large expense. He also advised that the typical month-to-month variations of repairs would even out throughout the year.

*Motion by Mr. Dykhouse and second by Mr. Christen to accept the financial report as presented. By roll call vote, the motion passed unanimously.*

## **ITEM 6. – REPORT FROM EXECUTIVE DIRECTOR**

Mr. Headley advised the Board on the favorable news regarding the President's budget and said it includes \$15 million for the operations of the Sanford Underground Research Facility in FY2015.

In regard to SDSTA safety performance, Mr. Headley noted only one recordable injury in 2014-to-date. He said the overall goal is to reduce the number of recordable injuries by 50% in 2014.

Mr. Headley said the underground activity headcount has increased due to the following activities: the Large Underground Xenon (LUX) preparations, MAJORANA (MJD) shield assembly, NASA astrobiologists obtaining water samples, Long-Baseline Neutrino Experiment (LBNE) geotechnical

studies and core drilling, heating upgrades, Davis Campus venting and air conditioning (HVAC) system, Emergency Response Team (ERT) training and SDSTA staff providing ground support installation.

Future experiment updates were then discussed by Mr. Headley and included: LBNE, Compact Accelerator System for Performing Astrophysical Research (CASPAR) and the Black Hills State University (BHSU) Underground Campus. He said the first of four core drilling holes have been completed to define the rock mass planned for the LBNE detector on the 4850L. The total planned drilling footage is 2,625 feet.

Ms. Lebrun asked if foreign institutions expect something in return for contributing to the LBNE experiment. Mr. Headley said that the international science community wants to help develop the technology for LBNE and will expect to be responsible for a defined portion of the experiment.

Mr. Headley said SDSTA had recent design discussions with the CASPAR team. The collaboration is led by the University of Notre Dame and includes the South Dakota School of Mines and Technology and Colorado School of Mines. The experiment installation and commissioning is planned for 2015.

In regard to the BHSU Underground campus, Mr. Headley said it will be part of a multidisciplinary science facility. The campus will include low-background counting experiments and geology and geology experiments inside a cleanroom facility within the campus. He said the expected completion is mid-2015.

In mid-March, the Fletcher Bolter arrived onsite, was disassembled and lowered underground, and then reassembled. Mr. Headley said the advantages of this bolter compared to a jackleg drill are less noise and vibration for the SDSTA Facility Technicians.

The Ross Shaft Refurbishment Project progressed to 1,407 feet down the shaft from the collar, which is located just below the 1250L station and is proceeding efficiently.

Mr. Headley said the SDSTA has conducted two of three scheduled Friends and Family Tours of the 4850L. Positive feedback was received from the participants; the tours were a success and a morale booster. He said it is clear that employees enjoyed getting the chance to show the laboratory to friends and family members.

Mr. Headley thanked and recognized the strong partnership with the Lead Chamber of Commerce and Homestake Visitor Center staff in their support of attending the meeting presentation and work involved with the plans of the new visitor center.

Mr. Headley introduced SDSTA Engineering Director Mr. Joshua Willhite, who provided a status briefing on the Sanford Laboratory Homestake Visitor Center facility and exhibit plans. Mr. Willhite introduced representatives from Albertson Engineering to help address structural design questions. He began by stating that value engineering was performed to reduce project cost while preserving the core architectural program. Geotechnical investigations were conducted and evaluated of the current site, which concluded the development of a new foundation design to accommodate site conditions.

Mr. Willhite said the exhibit design elements are very conceptual at this time. He said the project budget increased \$1.5 million due primarily to a new foundation design to accommodate the site's geotechnical conditions, along with smaller cost increases for analysis of alternate sites and other construction costs. He said if the budget is approved, demolition would be scheduled for June 2014, with completion in June 2015. SDSTA board members discussed the authorization of the additional spending from the Sanford Underground Research Facility's existing budget, with the understanding that the Yates Education and Outreach Rehabilitation Project will need to be delayed until additional funds are raised.

Ms. Lebrun suggested conducting a cost analysis on enclosing the back deck of the new visitor center to add more space and inquired if a cost analysis was conducted for this option. Mr. Paul Christen said that these ideas are desirable but this project is already over budget. He said that it would delay the project by perhaps three years because of the additional fundraising that would be needed. If money is taken away from additional projects, then the focus is taken off the main mission. Lead Chamber of Commerce Executive Director Ms. Melissa Johnson commented that enclosing the back deck had been considered to display temporary outdoor exhibits during the summer season. Mr. Headley advised that due to the limited budget, it is not in the current plans. Mr. Wheeler remarked that the Sanford gift money is available for the visitor center and the Yates Education and Outreach (E&O) Building project is currently delayed until additional funds are raised.

Mr. Headley introduced BHSU President Dr. Kay Schallenkamp who spoke on the remodeling of the Sanford Science Education Center at the BHSU campus in the Jonas Science Hall. She said it will be a state of the art teaching center for science and math teachers. Dr. Schallenkamp said the goals are to develop active learning concept, develop best practices in pedagogy, increase research opportunities, build partnerships for engagement and collaboration and, finally, create innovative workforce development.

*Motion by Ms. Lebrun and second by Mr. Christen to accept the Executive Director's report. By roll call vote, the motion passed unanimously.*

#### **ITEM 14. – DISCUSS CAPEX BUDGET UPDATE**

*Item 14 was moved up to follow Item 6 on the agenda in the interest of maintaining a quorum.*

Mr. Headley reviewed line items in the updated CAPEX budget, which included postponed and completed projects for FY2014. Mr. Wheeler asked if there were any questions. Mr. Christen reiterated that the additional money approved for the new Homestake Visitor Center will delay the Yates E&O Building project until additional funds are raised.

*Motion by Mr. Christen and second by Ms. Lebrun to accept the changes to the Operational CAPEX budget with the understanding that the increase of \$1.5 million to the Sanford Laboratory Homestake Visitor Center will defer the Yates Education and Outreach Building remodel until funded. By roll call vote, the motion passed unanimously.*

*Mr. Dykhouse departed the meeting at 11:08 AM.*

#### **ITEM 7 – 2014 LEGISLATIVE UPDATE**

SDSTA Legal Counsel Mr. Tim Engel advised the Board on South Dakota House Bill No. 1101. New language includes the president of the South Dakota School of Mines and Technology as an ex-officio, nonvoting SDSTA board member. Mr. Engel said it was passed without opposition, signed by the Governor and will become law on July 1, 2014. Mr. Engel thanked the Governor's office, Mr. Tony Venhuizen in particular, for their support. He acknowledged Mr. Venhuizen, SD Board of Regents Executive Director Dr. Jack Warner and Mr. Headley who attended the committee hearings and testified on behalf of SDSTA.

Mr. Engel commented that SD District 31 Representative Fred Romkema introduced an amendment to the 2014 general appropriations bill to provide \$1 million for the CASPAR infrastructure. Unfortunately, the funding priorities would not accommodate those monies, and as a result the amendment was not included in the general appropriations bill. He said SDSTA would support Representative Romkema should another attempt be made next year.

Mr. Engel asked if there were any questions. There were none.

## **ITEM 8 - SELECT NOMINATING COMMITTEE**

Mr. Wheeler advised the board that Chairman Peterson had requested Mr. Dana Dykhouse and Dr. Ani Aprahamian continue to serve on the Nominating Committee. Both have agreed and will bring a slate of officers to the June meeting to conduct the task of electing officers. Mr. Wheeler said if any board member wishes to hold an office, they should contact Mr. Dykhouse or Dr. Aprahamian.

## **ITEM 9 - EXECUTIVE SESSION**

*Motion by Ms. Lebrun and second by Mr. Adam to enter into executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters. By roll call vote, the motion passed unanimously.*

*The board recessed at 11:27 AM for lunch and Executive Session and reconvened at 12:25 PM.*

## **ITEM 10. – REPORT FROM EXECUTIVE SESSION**

Mr. Wheeler reported that the board discussed personnel matters and consulted with legal counsel concerning contractual and legal matters. No action was taken. No quorum was present following the executive session in order to approve the report. An action item was noted to approve the report at the next meeting.

## **ITEM 11. – UPDATE ON PARTICLE PHYSICS PROJECT PRIORITIZATION PANEL (P5)**

Sanford Underground Research Facility Operations Head Dr. Kevin Lesko began his update stating that the long range planning process has begun within the High Energy Physics (HEP) community. He said every five years, the panel plots out a twenty-year strategy for physics and establishes the plans for the next ten years.

*Dr. Aprahamian joined the meeting at 12:28 PM.*

Mr. Wheeler asked Dr. Lesko to hold his comments momentarily as Dr. Aprahamian had rejoined the meeting and that a quorum has been reestablished.

Mr. Wheeler restated that that the board discussed personnel matters and consulted with legal counsel concerning contractual and legal matters during the executive session. No action was taken.

*Motion by Mr. Christen and second by Ms. Lebrun to accept the executive session report. By roll call vote, the motion passed unanimously.*

## **ITEM 15. – REVIEW OF UPDATED POLICIES**

*Item 15 was moved up to follow Item 11 on the agenda in the interest of maintaining a quorum.*

Mr. Headley briefly discussed the updated policies listed below and said that Mr. Engel had reviewed the policies. He asked if there were any questions or comments. There were none.

*Policy 4.5.1: At-Will Employees (updated)*

*Policy 4.12: Progressive Discipline and Termination (updated)*

*Motion by Ms. Lebrun and second by Mr. Christen to approve the amendments to the above listed policies as presented to the board. By roll call vote, the motion passed unanimously.*

Mr. Wheeler then asked Dr. Lesko to resume his update.

Dr. Lesko advised there were twelve significant questions the HEP community discussed. He said seven are directly related to underground experiments. He also said project prioritization, cost allocations and scheduling were developed as well as three budget scenarios. A draft report will be completed in May regarding the approach for the next ten years.

Dr. Lesko said there is international interest in participating in the LBNE project. Also, there are five or six proposed experiments, which the panel will down select for funding; the LUX / ZEPLIN (LZ) experiment is one of them. A decision will be made by the selection committee in the next few months.

*Mr. Christen departed the meeting at 12:39 PM.*

#### **ITEM 12. – UPDATE ON EDUCATION AND OUTREACH (E&O)**

E&O Director Dr. Ben Sayler began his update by stating that facility plans are on schedule to start construction of the Jonas Science Hall remodel this summer and will be completed by the summer of 2015. The classrooms will be state of the art to support the transformation and innovative pedagogies.

Dr. Sayler discussed the current programs such as school field trip visits, science fairs and summer Davis Bahcall scholars. He said five summer interns have been selected. Two of the five interns have been selected for the Chris Bauer internship. Also, the summer teacher forum is now a two-week session and has been advertised for June and July.

In addition, the Governor's Office of Economic Development has authorized three years of funding to complement the National Science Foundation (NSF) grant and expand the education and outreach program as well as staff. He said BHSU posted a part-time position through the Board of Regents for a Stem Education Specialist, which has had significant interest.

The strategic plan for the Sanford Science Education Center has been finalized and Mr. Headley said that he would provide board members a copy. In conclusion, Dr. Sayler said numerous grant proposals have been submitted and he is awaiting responses.

#### **ITEM 13. – VISITOR CENTER MEMORANDUM OF UNDERSTANDING (MOU) UPDATE**

Mr. Headley advised the board that the MOU between the SDSTA and the Homestake Visitor Center/Lead Chamber of Commerce is in a holding pattern while the waiver issue for the site is resolved. He said the design team and the Homestake Visitor Center staff will continue forward on incorporating the necessary language before the job is bid out.

#### **ITEM 16. – CONFIRM DATE AND TIME FOR NEXT BOARD MEETING**

Mr. Wheeler asked if there were any concerns with the next board meeting on Thursday, June 19, 2014 at 9:00 AM (MT). There were none.

#### **ITEM 17. – BOARD COMMENTS**

Ms. Lebrun commented that this was a good meeting with good information. She said upon arriving at Sanford Laboratory today, the thought struck her of the huge changes that have occurred since the lab started a number of years ago and complimented the staff on a job well done.

Dr. Aprahamian said she missed being onsite and commented on the excellent progress.

Mr. Wheeler thanked the SDSTA staff. He commented that the updated safety video was well done and modern. He congratulated the Communications Department for a job well done. Mr. Wheeler said it was a good meeting.

Mr. Headley thanked the team, especially User Support Office Manager Ms. Mandy Knight and Administrative Assistant Ms. Michelle Andresen for all their board meeting support. He also thanked the board members for the support of the Homestake Visitor Center additional funding. Mr. Headley commented that the Homestake Visitor Center staff and townspeople are excited about the project and feel it will help promote Sanford Laboratory.

## **ITEM 18. – ADJOURN**

Mr. Wheeler asked if anyone had any other questions or comments and then called for a motion to adjourn.

*Motion by Ms. Lebrun and second by Mr. Wheeler to adjourn. Motion passed unanimously.*

**Meeting adjourned at 12:55 PM.**